

Introduction

Protecting Puget Sound is more complex and challenging than ever. We have moved forward on a variety of issues, but new challenges continue to emerge and many existing problems persist as the region's population continues to grow. Many species, including some salmon, steelhead and bottomfish are at risk. Despite the restoration of thousands of acres of shellfish beds, shellfish from 25 percent of the Sound's commercial growing areas still are not safe to eat. Hundreds of homeowners have repaired or upgraded their on-site sewage systems, but with 10,000 new systems going in each year, local officials must work even harder to prevent future problems. Water pollution, losses of wetlands, accumulation of toxics and declines in populations of some species have left Puget Sound in major need of protection and restoration efforts.

This *2001-2003 Puget Sound Water Quality Work Plan* presents a two-year strategy to continue work to protect the Sound's health in the face of new and continuing problems. It builds on past efforts and focuses attention on the priority issues section starting on the next page.

The goals of this work plan are to achieve measurable improvements in Puget Sound over a two-year period and to continue implementing the *Puget Sound Water Quality Management Plan*. The management plan provides the framework for an ongoing comprehensive and coordinated approach to protect and restore the Sound.

The "Actions" sections of the August 2001 edition of this work plan identify actions that state agencies will take to protect and restore Puget Sound during the 2001-2003 biennium. Starting early in the 2001-2003 biennium, local and tribal governments and federal agencies will be invited to iden-

MILESTONES IN MANAGING THE HEALTH OF PUGET SOUND

1985—Puget Sound Water Quality Authority established.

1986—First *Puget Sound Water Quality Management Plan* developed.

1988—Puget Sound designated by the U.S. Environmental Protection Agency as an estuary of national significance, became part of the National Estuary Program.

1991— U.S. EPA approved the *Puget Sound Management Plan* as the federal Comprehensive Conservation and Management Plan.

1991 & 1994—*Puget Sound Management Plan* updated.

1996—Puget Sound Water Quality Protection Act passed, restructuring management of the estuary, replacing the Authority with the Puget Sound Water Quality Action Team and Puget Sound Council, and requiring biennial work plans to protect Puget Sound.

1996—First two-year work plan adopted.

1998—Second two-year work plan adopted.

1998—Legislature clarified Action Team's mandate to identify salmon recovery actions in the work plan.

2000—*Puget Sound Management Plan* updated.

2000—Third two-year work plan adopted.

tify actions they will take to implement this work plan. Their actions will be periodically added to the web version of this work plan at http://www.wa.gov/puget_sound.

When federal, tribal, state and local governments, and others implement this work plan, they will make a significant contribution to protecting and restoring the biological health and diversity of Puget Sound.

Structure of the Work Plan

This introduction provides background on preparation of the work plan, highlights actions to be taken on work plan priorities, and summarizes state agency work plan budgets. Actions for protecting Puget Sound start on page 10 and are divided into program sections corresponding to major pollution problems, resource issues and management tools. For each section, a brief introduction presents the goal and strategy of the program from the management plan, background information on the topic, and a summary of related state agency budgets.

Table 1 at the end of this Introduction provides a summary of state agency budgets adopted by the legislature for implementing the work plan in comparison to what the Action Team recommended. Tables 2 and 3 at the end of the work plan give a more detailed look at the legislative budget details to implement the work plan by agency and program grouping.

Preparing the Work Plan

The Puget Sound Water Quality Action Team developed this work plan and budget with advice from the Puget Sound Council. Biennial work plans and budgets are based on the management plan and other ongoing activities and plans.

Preparation of this work plan began in December 1999 through consultations with local and tribal governments and state agencies. In February 2000, the Action Team adopted priorities for action (see below). In July, state agencies submitted their actions and related budget needs to implement the work plan. A draft work plan was released on July 31. The August 2001 edition of the work plan incorporates the Puget Sound Council's and Action Team's response to public comments and the final 2001-2003 state budget.

Local Issues and Current Scientific Findings

In developing priorities for this work plan, the Puget Sound Council and the Action Team considered recent scientific findings. The Puget Sound Ambient Monitoring Program, coordinated by the Action Team (or the former Puget Sound Water Quality Authority) since 1987, collects and communicates information about the condition of Puget Sound. The recent findings of this program and other investigations are presented in two reports released by the Action Team in 2000—the *2000 Puget Sound Update* and *Puget Sound's Health 2000*. The reports provide scientific evidence that some aspects of Puget Sound's health are improving. However, they also show that the Sound continues to suffer many damaging effects from the region's growing human population.

Improvements over the past several years in the condition of Puget Sound and its natural resources include steady or increasing populations of some organisms and decreases in some toxic contami-

nants in a few areas. Harbor seals and many species of marine birds are doing well, and their numbers are growing. Some contaminants in mussel tissue have decreased at some locations from levels measured in the 1970s and 1980s, indicating a decline in the concentrations of contaminants in the waters of Puget Sound.

Evidence of continued environmental problems for Puget Sound includes the poor or declining condition of a wide variety of marine organisms. Many continuing problems relate to changes our society has made to the physical environment and contamination of the environment by toxic chemicals, pathogens and excess nutrients. Marine organisms in poor or declining condition in Puget Sound include many species of bottomfish, salmon, herring and marine invertebrates.

Priority Issues for the 2001-2003 Work Plan

The challenge for this work plan is to address important issues that require immediate action while preserving the fragile gains made across the spectrum of water quality issues.

Identifying an issue as a priority means the Action Team and Puget Sound Council recommend focusing additional work and resources to achieve measurable results during the 2001-2003 biennium.

This does not mean work on other efforts should stop—it is important to continue addressing all issues facing the Sound.

The work plan contains actions that continue to implement important programs in the *Puget Sound Management Plan*, including monitoring and research, agriculture and forestry, spills, municipal and industrial discharges, and contaminated sediments and dredging. The work plan also includes ongoing agency actions that are essential to hold the line on our current successes.

The following is a description of each priority and highlights of actions that state agencies will work on during the 2001-2003 biennium:

► CONTAMINATED SEDIMENT SITES

Priority: Governments and interested entities should work with responsible parties to remediate contaminated sediment sites and to prevent recontamination.

HIGHLIGHTS OF ACTIONS

- State and federal agencies and tribal and local governments will cooperate on the Bellingham Bay Demonstration Pilot Project to clean up contaminated sediments and restore and enhance aquatic habitats.
- State and federal agencies will coordinate policies for cleaning up sediments as part of the Cooperative Sediment Management Program.
- State and federal agencies and ports will collaborate to develop a multi-user site for treatment or disposal of contaminated sediments.
- Department of Ecology will develop guidance to carry out the Sediment Management Standards.

► NEARSHORE HABITAT

Priority: Local governments should update their shoreline master programs to reflect best available science to better protect the nearshore environment. State agencies should provide guidance, technical assistance and funding to local governments. Tribal governments are encouraged to provide technical and program support to these efforts as they relate to the protection of habitat for fish and shellfish.

HIGHLIGHTS OF ACTIONS

- Ecology will provide technical assistance guidance materials, and training to local governments to support updating of their Shoreline Master Programs.
- The Office of Community Development (OCD), in cooperation with other state agencies and the Planning Association of Washington, will conduct a short course on local planning on the Growth Management Act, the Shoreline Management Act and the management plan.
- The Department of Natural Resources will disseminate information on nearshore habitat that local governments can use in updating their shoreline master programs.
- The Action Team support staff will coordinate the development of a strategy for conducting local inventories of habitat.
- University of Washington Sea Grant will work with the Washington Coastal and Shoreline Planners Group to develop educational programs about habitat for salmon and shellfish.

Priority: Governments and landowners should restore and protect habitat along the nearshore fringe of Puget Sound to improve conditions for out-migrant salmon, spawning forage fish and other species. Habitat protection should include: minimizing the use of shoreline stabilization structures; promoting the use of “soft” stabilization techniques; and strengthening programs for land acquisition and preservation. State and federal agencies and tribal governments should provide guidance and research on new technologies. State and federal agencies should provide funding and hands-on workshops to demonstrate the effectiveness of softer armoring approaches.

HIGHLIGHTS OF ACTIONS

- Ecology will continue to implement a watershed-based program to restore wetlands.
- The Action Team support staff will coordinate and provide technical assistance to local planning groups on habitat restoration and protection.
- The Action Team support staff will coordinate the activities of the work group on nearshore habitat loss.
- The Washington Department of Fish and Wildlife will monitor for the presence of green crab.
- The Department of Agriculture will coordinate a program to control the spread of spartina and purple loosestrife.
- Fish and Wildlife, other agencies, ports, and community and business groups will develop and implement a ballast water management program for vessels entering Puget Sound and state waters.

- Natural Resources will disseminate information on nearshore habitat that can be helpful in characterizing nearshore lands for acquisition and preservation efforts.

► SALMON, GROUND FISH, FORAGE FISH AND OTHER SPECIES AT RISK

Priority: Local governments should protect salmon habitat by adopting and enforcing fish-friendly zoning, critical areas ordinances and stormwater and shoreline management programs. State agencies and tribal governments should provide guidance and technical assistance to local governments.

HIGHLIGHTS OF ACTIONS

- Ecology will develop and update technical assistance materials on wetlands protection and will help local governments plan and administer programs to protect wetlands.
- Washington State Department of Transportation (WSDOT) will implement projects to remove barriers to fish passage identified in an inventory prepared by Fish and Wildlife.
- The Office of Community Development will provide funding to local governments for updating local critical areas ordinances.
- All agencies will coordinate relevant aspects of their Puget Sound work plan efforts with the state salmon recovery strategy.

Priority: Government agencies and interested entities and groups should develop and implement conservation and recovery plans to protect and restore Puget Sound's ground fish, forage fish, salmon, and other species at risk and also promote incentives for voluntary restoration and enhancement of habitat. State and federal agencies and tribal governments—as fisheries co-managers—should provide data on at-risk species, guidance, technical assistance and funding to support development and implementation of these plans.

HIGHLIGHTS OF ACTIONS

- WSDOT will remove barriers to fish passage and support standardized design for the department's barrier removal projects and grant programs.
- WSDOT will provide technical support for recovery planning and develop a pilot mapping and field identification system for roadside areas that contain threatened and endangered salmon, animals and plants.
- The University of Washington Sea Grant and Washington State University Cooperative Extension will provide technical assistance, education and information for groups working to protect and restore salmonids and shellfish habitat.

Priority: Government agencies, working in coordination with interested groups and entities, should establish marine protected areas and reserves, using both voluntary and regulatory approaches, to protect and restore at-risk species.

HIGHLIGHTS OF ACTIONS

- Fish and Wildlife will develop and implement three to four marine protected areas (MPAs) in partnership with local governments and tribes.
- The Action Team support staff will work with Fish and Wildlife, Natural Resources, State Parks, tribal governments and non-governmental organizations to: develop criteria and standards for marine protected areas; coordinate research efforts relevant to marine protected areas; identify gaps in marine protection Soundwide; and designate marine protected areas.

► SHELLFISH BEDS

Priority: Local governments should designate shellfish growing areas as critical areas under the state Growth Management Act and as areas of special concern under the state on-site sewage regulations. Local and tribal governments should adopt measures to manage growth and to prevent pollution from failing on-site sewage systems, urban runoff, animal wastes and other sources. State agencies and tribal governments—as fisheries co-managers—should provide guidance and technical assistance.

HIGHLIGHTS OF ACTIONS

- State agencies, universities and others will work to: assess actions needed to protect shellfish; protect and restore water quality in shellfish areas; enhance opportunities to harvest shellfish; and prevent the consumption of contaminated shellfish.

- OCD will develop a list of scientific references so cities and counties have access to the best available science in developing policies and regulations to protect critical areas. OCD will provide other technical assistance and track final adoption of local policies and development regulations intended to protect critical areas.
- Department of Health will develop and distribute guidance to help local health jurisdictions establish areas of special concern and to raise public awareness of the proper use and maintenance of on-site sewage systems.
- Health will monitor water quality, assess pollution sources, identify and monitor corrective actions, establish harvest classifications and provide technical assistance to protect and restore shellfish areas.
- Ecology will carry out the 1998 Dairy Nutrient Management Plan to reduce pollution from dairy operations. Ecology will provide technical assistance, register farms, identify potential pollution sources, conduct inspections and ensure compliance with GMA.
- Ecology will identify waters that do not meet water quality standards and complete water cleanup plans according to a 15-year schedule.
- Washington Sea Grant and Washington State University Cooperative Extension will provide technical assistance and education to protect water quality and aquatic habitats.
- Action Team support staff will continue to provide technical assistance to local governments and to participate on interagency shellfish protection and restoration committees.

Priority: Local governments should promptly address threats to shellfish beds that are identified by the state Department of Health's early warning system. Local governments should apply all available resources to address threats, including emergency financial and regulatory measures. State agencies should provide guidance and technical assistance to local governments.

HIGHLIGHTS OF ACTIONS

- Health will identify and address declines in water quality in shellfish growing areas prior to issuing downgrades in classification of beds and will distribute data on the condition of growing areas and trends in fecal coliform.
- Ecology and Action Team support staff will assist with the early warning system and strategies to protect and restore threatened and downgraded shellfish beds.
- Ecology will oversee implementation of the Nonpoint Source Pollution Plan and provide technical and financial assistance to local and tribal governments for programs to control sources of nonpoint pollution.
- Washington Sea Grant will provide technical assistance, local coordination and education to protect and restore shellfish beds.
- The Action Team support staff will provide information to local governments on funding sources.

► STORMWATER

Priority: Local governments should adopt and implement stormwater programs as defined in the *Puget Sound Water Quality Management Plan*. State agencies should provide guidance and technical assistance and funding to local governments.

HIGHLIGHTS OF ACTIONS

- Ecology will provide technical assistance to help cities and counties develop effective programs to manage stormwater.
- The Action Team support staff will provide technical assistance to local communities and convene periodic meetings to coordinate regional assistance to local governments on stormwater.

Priority: State and local governments should identify and remove impediments to and provide incentives for use of low impact development techniques that minimize or eliminate runoff. State agencies should provide guidance and technical assistance to local governments.

HIGHLIGHTS OF ACTIONS

- The Action Team support staff will work with businesses, agencies and others to promote the understanding and use of low impact development practices.
- Washington State University will provide technical and educational assistance to local governments on innovative stormwater management practices (action is highlighted in the Education and Public Involvement Program).

► ON-SITE SEWAGE SYSTEMS

Priority: Local governments should adopt and implement operation and maintenance programs for on-site sewage systems. State agencies should provide guidance and technical assistance to local governments.

HIGHLIGHTS OF ACTIONS

- Health will provide technical assistance, guidance and support to help local health departments develop effective operation and maintenance programs.
- University of Washington Sea Grant and Washington State University Cooperative Extension will provide technical assistance and education on maintaining and monitoring on-site sewage systems.
- Action Team support staff will help local health departments develop effective operation and maintenance programs for on-site sewage systems.

How the Work Plan Relates to Other Protection Efforts

The *Puget Sound Management Plan's* programs complement other important federal, tribal, state and local government efforts to protect water quality and biological resources. These include managing growth, protecting threatened species and managing watersheds. The Action Team helps coordinate approaches, activities and funding among these initiatives.

Members of the Action Team representing state agencies are also members of the Joint Natural Resources Cabinet, which coordinates the state's response to threatened species of salmon statewide. Many of the activities in the work plan that support salmon recovery are called for by the state plan for recovering salmon, developed by the Governor's Salmon Recovery Office and the Joint Natural Resources Cabinet.

This work plan is being adopted at a time when all levels of government are making unprecedented efforts to protect and restore the environment. Because these initiatives are evolving, the links among them are still being developed.

Many new watershed plans are being initiated under the Watershed Planning Act (Chapter 247, Laws of 1998). These plans should incorporate past work in these watersheds, including plans developed under Chapter 400-12 WAC, the Non-point Rule.

Salmon restoration projects are being carried out in many watersheds under the Salmon Recovery Act (Chapter 246, of 1998) with funding provided by the Salmon Recovery Funding Board. An analysis of limiting factors in each watershed is part of these efforts. These analyses review all available information in developing conclusions. In addition, other initiatives may benefit from the data generated by the limiting factors analyses. The Puget Sound Shared Strategy is working to

ensure that local governments, watershed and marine waters groups, and private sector representatives work together with tribal, state, and federal agencies to develop a salmon recovery plan for Puget Sound. It links local governments, watershed groups, and others to the critical process of identifying how to achieve salmon recovery goals by establishing a forum to discuss on-the-ground watershed and marine waters efforts and important policy initiatives. This work plan contains many actions that contribute to salmon recovery. As additional actions to recovering salmon are identified through the Shared Strategy effort, they can be supported in future work plans.

Congress has authorized and funded through the Northwest Straits Initiative, an effort to protect and restore natural resources in northern Puget Sound. The work is coordinated through the 13-member Northwest Straits Commission (NWSC), which is composed of seven county representatives (one from each of the seven counties' Marine Resource Committees, or MRCs), five Governor appointments (including a member from the Action Team) and one tribal member appointed by the Secretary of the Interior.

The NWSC provides oversight and technical assistance to MRCs, integrates science, coordinates funding, and reviews projects carried out by the MRCs. Progress is measured against benchmarks, which relate to resource recovery, water quality, nearshore habitat, shellfish growing area restoration and protection and education in the seven-county area. One round of projects are underway and another round of proposals for each of the seven MRCs are in review. Common themes for these projects include: recovery plans for bottomfish; establishing voluntary marine protected areas; mapping of eelgrass and other important marine nearshore habitats; monitoring forage fish spawning areas; and education and public involvement.

Local Government Funding for Puget Sound

Local governments contribute a significant portion of the total funds used to restore and protect Puget Sound. Many of the programs in the work plan depend on local implementation. Early in the biennium, the Action Team will invite local governments to identify projects they will take to implement this work plan.

The estimated total cost for all local projects in the 1999-2001 work plan was \$469 million. Of this figure, \$190 million was identified as purely local costs; the balance was split among local, state and federal costs. However, the work plan did not include cost estimates for every local government project. Therefore, the \$190 million was a very low estimate of total local expenditures. This figure illustrates the major commitment local governments are making to protect and restore Puget Sound and, in turn, the scale of local governments' needs for new and enhanced sources of funding.

Tribal Government and Federal Agency Funding

Tribal governments and federal agencies also contribute significant funding and resources to protect and restore Puget Sound. As mentioned above, the Action Team will contact tribal governments and federal agencies early in the 2001-2003 biennium to identify actions they will take to implement this work plan.

State Agency Budget Summary

State funding for restoration, technical assistance, resource management, pollution control and stewardship training is critical to the future health of Puget Sound.

Action Team agencies' budgets include state expenditures of \$86,678,632 to protect and restore the Puget Sound basin during the 2001-2003 biennium. Of this total, \$30,833,632 is provided in the state budget to be used solely for implementing the Puget Sound work plan.

This work plan budget might appear to be a significant amount of funding, but it does not fully fund all the actions necessary to protect water quality and habitat as outlined in the *Puget Sound Water Quality Management Plan*. It focuses on maintaining momentum on important management issues and adding strategic enhancements to address key priorities.

Many actions in this work plan support the critical goals of restoring salmon runs and implementing watershed plans. As directed by the legislature in 1998, these relationships are indicated in the righthand column on the tables of actions.

Table 1 summarizes expenditures for continuing state agency actions and enhancements. Tables 2 and 3 at the end of the work plan describe, by agency and by program, the detailed state budget to implement the work plan.

Table 1. Summary of the 2001-2003 Work Plan Budget for State Agencies

Agency	Continued 1999-2001 Proviso Funds	Action Team Recommendations for 2001-2003		Final Budget Provisos for 2001-2003		Non-Proviso Funds Reported by Agencies
		Adjustment	Total	Adjustment	Total	
Agriculture	\$73,000		\$73,000		\$73,000	
Office of Community Development	\$123,000	\$2,400,000	\$2,523,000		123,000	
Conservation Commission	\$494,000	\$840,000	\$1,334,000	\$840,000	\$1,334,000	
Ecology	\$13,839,000	\$14,204,362	\$28,043,362	\$2,599,359	\$16,438,359	\$48,000
Fish and Wildlife	\$3,599,323	\$1,755,000	\$5,354,323	\$(235,600)	\$3,363,723	
Health	\$3,411,000	\$(60,000)	\$3,351,000	\$(60,000)	\$3,351,000	
Natural Resources	\$1,033,550		\$1,033,550		\$1,033,550	
Puget Sound Action Team	\$4,109,000	\$1,000,000	\$5,109,000	\$18,000	\$4,127,000	
State Parks	\$189,000		\$189,000		\$189,000	\$525,000
Transportation						\$55,272,000
University of Washington	\$470,000	\$300,000	\$770,000		\$470,000	
Washington State University	\$331,000	\$300,000	\$631,000		\$331,000	
Total	\$27,671,873	\$20,739,362	\$48,411,235	\$3,161,759	\$30,833,632	\$55,845,000

Actions to Protect and Restore Puget Sound During the 2001-2003 Biennium

ABOUT THE ACTIONS

The following sections of this report describe the actions that state agencies propose to take to protect and restore Puget Sound during the 2001-2003 biennium. The sections correspond with programs from the *2000 Puget Sound Water Quality Management Plan*.

The first page of each section includes an introduction that describes goals and strategies from the management plan (if applicable), background and trends, highlights of actions to be taken during the 2001-2003 biennium, and a recommended budget for state actions.

State agencies proposed the actions on the following pages. Each action includes an anticipated outcome or result.

Budget Code: This column is used only for state agency actions and indicates the budget category that supports the action. Budget categories and related amounts and fund sources are listed in Table 2 at the end of the work plan. Entries show the agency initials followed by a number, such as DFW-17 for Department of Fish and Wildlife budget item number 17. A zero after the agency initials indicates that the budget for the action is not included in this work plan.

PS Plan Element: In some entries, the program element is shown as a "0," as in "SP-0." This indicates that the action is not specifically mentioned in the *Puget Sound Water Quality Management Plan* but is consistent with program goals or strategies.

Guide to PS Plan program abbreviations:

AG	Agricultural Practices
ANS	Aquatic Nuisance Species
EMP	Estuary Management & Plan Implementation
EPI	Education & Public Involvement
FP	Forestry Practices
MB	Marinas & Recreational Boating
M0N	Monitoring, Research and Laboratory Support
OS	On-Site Sewage
MI	Municipal & Industrial Dischargers
SED	Contaminated Sediments
SF	Shellfish Protection
SP	Spills Prevention & Response
SW	Stormwater and Combined Sewer Overflows
WABC	Puget Sound/Georgia Basin Shared Waters
WET	Marine and Freshwater Habitat Protection
WP	Local Watershed Plans
SDPA	State Drought Preparedness Account

Salmon: A check indicates the project is designed primarily to protect and restore salmon habitat.

Nonpoint: A check indicates that the project originates from the planning process described in Chapter 400-12 WAC.

Priority: A check indicates that the project responds to one or more of the Action Team's priorities for the 2001-2003 biennium (see page 2.)

	Pri- ori- ty	Non- point	Sal- mon	Budget Code	PS Plan Element	Action ID
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DOE-08	W-2	635
etlands s are shed problems	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DOE-08	W-7	634
possible thomish Basins.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DOE-08	W-8	633

Action ID: Numbers in this column will be used by the Action Team to track and report on actions.